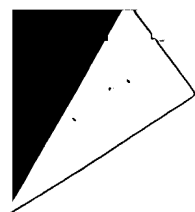


What is claimed is:

1. A porous member comprising a metallic porous body having a three-dimensional network structure and having the average pore diameter of 50 μ m to 1 mm and the porosity of 80% or over, and a metal substrate, said metallic porous body and said metal substrate being joined together by solid phase diffusing treatment so as to form an integral structure.
2. A porous member as claimed in claim 1 wherein said metallic porous body and/or said metal substrate is formed of a material which comprises an Fe-Cr or Ni-Cr alloy containing at least one element selected from the group consisting of Ni, Mo, Cu, B, Al, Si, Ti and C.
3. A porous member as claimed in claim 1 or 2 wherein the electrical resistance at the joint surface between said metallic porous body and said metal substrate is not more than 4.5 m Ω .cm².
4. A porous member as claimed in claim 1 or 2 wherein the oxygen concentration at the joint surface between skeleton portion of said metallic porous body and said metal substrate is not more than 10 wt%.



5. A method of manufacturing a porous member, comprising the steps of laminating a metallic porous body and a metal substrate, and subjecting them to heat treatment at a temperature of not less than 900 °C and not more than 1300 °C under pressurized state in a reducing atmosphere to join said metallic porous body and said metal substrate together by solid phase diffusion at the interface.

6. An electrochemical device wherein the porous members as claimed in any of claims 1-4 are arranged on both sides of a proton exchange membrane and a catalyst electrode layer to function as a gas diffusing electrode and a separator.